



DSI10402.ST25.txt

<110> Cosenza, Lawrence W.
<120> SACROMASTIGOPHORIC THERAPEUTIC AGENT DELIVERY SYSTEM
<130> DSI-10402/22
<140> US 10/735,203
<141> 2003-12-12
<150> US 60/433,269
<151> 2002-12-13
<160> 29
<170> PatentIn version 3.2
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<223> Primer for echovirus 1 VP1 protein

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<211> 69
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<223> Primer for echovirus 1 VP1 protein

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ttacagttat 69

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<212> DNA
<213> Artificial
<220>
<223> Primer for echovirus 1 VP3 protein

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<210> 4
<211> 70
<212> DNA
<213> Artificial
<220>
<223> Primer for echovirus 1 VP3 protein

DSI10402.ST25.txt

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tttacagtat 70

<210> 5
<211> 43
<212> DNA
<213> Artificial

<220>
<223> Primer for echovirus 1 VP2 protein

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<210> 6
<211> 67
<212> DNA
<213> Artificial

<220>
<223> Primer for echovirus 1 VP2 protein

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<212> DNA
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<220>
<223> Vectorial cloning primer for echovirus 1 VP1

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<211> 38
<212> DNA
<213> Artificial

<220>
<223> Vectorial cloning primer for echovirus 1 VP1

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DSI10402.ST25.txt
<223> Vectorial cloning primer for echovirus 1 VP3

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<211> 39
<212> DNA
<213> Artificial

<220>
<223> Vectorial cloning primer for echovirus 1 VP3

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39

<210> 11
<211> 35
<212> DNA
<213> Artificial

<220>
<223> Vectorial cloning primer for echovirus 1 VP2

<400> 11
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35

<210> 12
<211> 37
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<213> Artificial

<220>
<223> Vectorial cloning primer for echovirus 1 VP2

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37

<210> 13
<211> 40
<212> DNA
<213> Artificial

<220>
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40

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<212> DNA
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<220>
<223> Vectorial cloning primer for echovirus 1 VP4

<400> 14

DSI10402.ST25.txt

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DSI10402.ST25.txt

<210> 20
<211> 945
<212> DNA
<213> Artificial

<220>
<223> Recombinant echovirus 1 VP1 shell protein

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tcgcaggtag tacctggtga taccatgcag accagacatg tcatcaacaa tcacgtgagg 180
tcagaatcta caattgagaa cttccttgcc agatcagcgt gtgtttctt gctagagtac 240
aagacaggga ccaaagagga ttccaatagc ttgaacaatg gggtgattac aaccaggcga 300
gtgggtcaac tacgtataaa actggaaatg tttacttacc tacggtttga catggaaatc 360
accgtggtca ttacaagctc gcaagatcag tctacatcac aaaaccagaa tgcaccagt 420
ctaacacacc agataatgta tgtaccacca gggggaccca taccataag cgtggatgat 480
tacagctggc aaacattcac caaccccagt atcttttggc ccgaaggaa cgctccggca 540
cgcatgtcaa ttccatttat taacataggc aatgcgtata gtaatttcta cgatgggtgg 600
tctcacttct cccaggctgg cgtgtatggc ttcactactc tgaacaacat gggtaattt 660
ttcttccggc acgtaaacaa gcccaaccca gccgctatta caagtgtggc gcgcatttac 720
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aatagcacga atgtcaactt tgaacccaag ccagtgactg aagtacgtac caacataata 840
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gaagaccccg aggatctcga gcaccacca caccatcacc atcac 945

<210> 21
<211> 843
<212> DNA
<213> Echovirus 1

<220>
<221> gene
<222> (1)..(843)
<223> Native VP1 shell protein

<400> 21
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caggcagtac ctggtgatac catgcagact agacatgtga tcaacaatca cgtgaggtca 180
gaatctacaa ttgagaacctt cttgccaga tcagcgttg ttttctacct agagtacaag 240

DSI10402.ST25.txt

acagggacca aagaggattc caatagcttc aacaattggg tgattacaac caggcgagtg	300
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gtggtcatta caagctcgca agatcagtct acatcacaaa accagaatgc accagtgcta	420
acacaccaga taatgtatgt accaccaggg ggacccatac ccgtaaagcgt ggatgattac	480
agctggcaaa catccaccaa ccccagtatc ttttggaccg aaggaaacgc tccggcacgc	540
atgtcaattc catttattag cataggcaat gcgtata tagta atttctacga tgggtggct	600
cacttctccc aggctggcgt gtatggcttc actactctga acaacatggg tcaattgttc	660
ttccggcacg taaacaagcc caacccagcc gctattacaa gtgtggcgcg catttacttc	720
aaaccgaaac atgtacgcgc ttgggtgcct agaccaccgc gcttgtgtcc atacatcaat	780
agcacgaatg tcaactttga acccaagcca gtgactgaag tacgtaccaa cataataaca	840
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<210> 22

<211> 792

<212> DNA

<213> Artificial

<220>

<223> Recombinant echovirus 1 VP2 shell protein

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gagtatctga gtgataacga ggcaactgct gaggaccaac caacgcagcc ggacgtggcc	180
acttgcgtt tttacaccct agactcagtc caatgggaga atgggtcacc aggttggtgg	240
tggaagtttc ccgacgctct aaggatatg ggattatgg gccaaaatat gtactaccat	300
tacttaggca gagccggta taccatccac gtacaatgca atgcttccaa gtttcatcaa	360
ggctgtatcc tggtagtgtg tgtccctgag gcggagatgg gaagtgcucca aacctcaggg	420
gtggtcaact acgaacacat tagtaagggt gagatcgcat caaggttcac taccacgaca	480
acagcagaag accatggcgt gcaggccgcg gtatggaatg ctggatggg cggtggagtt	540
ggaaacttga cgatcttccc gcaccaatgg atcaaccttc gcaccaacaa cagcgccaca	600
attgttatgc catacgtaaa tagtgtacca atggacaata tgtatagaca tcacaacttt	660
acactaatga taataccctt tgtgcctctg gatttcagcg cgggtgcac cacatacgtg	720
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caccaatagt ag	792

<210> 23

DSI10402.ST25.txt

<211> 783
<212> DNA
<213> Echovirus 1

<220>
<221> gene
<222> (1)..(783)
<223> Native VP2 shell protein

<400> 23		
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tgccgtttttt acaccctaga ctcagtccaa tgggagaatg ggtcaccagg ttggtggtgg		240
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aacttgacga tttcccgca ccaatggatc aaccttcgca ccaacaacag cgccacaatt		600
gttatgccat acgtaaaatag tgtaccaatg gacaatatgt atagacatca caactttaca		660
ctaattgataa taccctttgt gcctctggat ttcagcgcgg gtgcataccac atacgtgccc		720
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caa		783

<210> 24
<211> 937
<212> DNA
<213> Artificial

<220>
<223> Recombinant echovirus 1 VP3 shell protein

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agtacctggt gataccatgc agaccagaca tgtatcaac aatcacgtga ggtcagaatc		180
tacaatttgc aacttccttgc ccagatcgc gtgtgttttgc ttgttagt acaagacagg		240
gaccaaaagag gattccaata gcttgaacaa tggggtgatt acaaccaggc gagtgggtca		300
actacgtata aaactggaaa tgtttactta cctacggttt gacatggaaa tcaccgtgg		360
cattacaagc tcgcaagatc agtctacatc acaaaaccag aatgcaccag tgctaacaca		420

DSI10402.ST25.txt

ccagataatg tatgtaccac cagggggacc cataccata agcgtggatg attacagctg	480
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ctcccaggct ggcgtgtatg gcttcactac tctgaacaac atgggtcaat tgttcttccg	660
gcacgtaaac aagcccaacc cagccgctat tacaagtgtg gcgcgcattt acttcaaacc	720
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<220>
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<210> 26

DSI10402.ST25.txt

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<212> DNA
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<220>
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atgataaaaa ccctgccagc gctgaattcg tag 213

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<211> 207
<212> DNA
<213> Echovirus 1

<220>
<221> gene
<222> (1)..(207)
<223> Native VP4 shell protein

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<211> 1047
<212> DNA
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<302> No trypanosome lytic activity in the sera of mice producing human
<303> Mol. Biochem. Parasitol.
<304> 119
<305> 2
<306> 291-294
<307> 2002-02-01
<313> (1)..(1047)

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gcaaatggct atgtggagca cttgtttcgc taccagtgtt agaactacta cagactgcgc 180
acagaaggag atggagttata caccttaaat gataagaagc agtggataaa taaggctgtt 240

DSI10402.ST25.txt

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<211> 348
<212> PRT
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<302> No trypanosome lytic activity in the sera of mice producing human
<303> Mol. Biochem. Parasitol.

<304> 119
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<306> 291-294
<307> 2002-02-01
<313> (1)..(348)

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35 40 45

Phe Arg Tyr Gln Cys Lys Asn Tyr Tyr Arg Leu Arg Thr Glu Gly Asp
50 55 60

DSI10402.ST25.txt

Gly Val Tyr Thr Leu Asn Asp Lys Lys Gln Trp Ile Asn Lys Ala Val
65 70 75 80

Gly Asp Lys Leu Pro Glu Cys Glu Ala Val Cys Gly Lys Pro Lys Asn
85 90 95

Pro Ala Asn Pro Val Gln Arg Ile Leu Gly Gly His Leu Asp Ala Lys
100 105 110

Gly Ser Phe Pro Trp Gln Ala Lys Met Val Ser His His Asn Leu Thr
115 120 125

Thr Gly Ala Thr Leu Ile Asn Glu Gln Trp Leu Leu Thr Thr Ala Lys
130 135 140

Asn Leu Phe Leu Asn His Ser Glu Asn Ala Thr Ala Lys Asp Ile Ala
145 150 155 160

Pro Thr Leu Thr Leu Tyr Val Gly Lys Lys Gln Leu Val Glu Ile Glu
165 170 175

Lys Val Val Leu His Pro Asn Tyr His Gln Val Asp Ile Gly Leu Ile
180 185 190

Lys Leu Lys Gln Lys Val Leu Val Asn Glu Arg Val Met Pro Ile Cys
195 200 205

Leu Pro Ser Lys Asn Tyr Ala Glu Val Gly Arg Val Gly Tyr Val Ser
210 215 220

Gly Trp Gly Gln Ser Asp Asn Phe Lys Leu Thr Asp His Leu Lys Tyr
225 230 235 240

Val Met Leu Pro Val Ala Asp Gln Tyr Asp Cys Ile Thr His Tyr Glu
245 250 255

Gly Ser Thr Cys Pro Lys Trp Lys Ala Pro Lys Ser Pro Val Gly Val
260 265 270

Gln Pro Ile Leu Asn Glu His Thr Phe Cys Val Gly Met Ser Lys Tyr
275 280 285

Gln Glu Asp Thr Cys Tyr Gly Asp Ala Gly Ser Ala Phe Ala Val His
290 295 300

Asp Leu Glu Glu Asp Thr Trp Tyr Ala Ala Gly Ile Leu Ser Phe Asp
305 310 315 320

DSI10402.ST25.txt

Lys Ser Cys Ala Val Ala Glu Tyr Gly Val Tyr Val Lys Val Thr Ser
325 330 335

Ile Gln Asp Trp Val Gln Lys Thr Ile Ala Glu Asn
340 345